Plug-In

Switch

TOSW-230+

50Ω SPDT Pin Diode, Reflective TTL Driver, 10 to 3000 MHz

CASE STYLE: QQ96
PRICE: $52.20 ea. QTY (1-9)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

Maximum Ratings

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Power	L(+20 dBm), M(+28 dBm), U(+30 dBm)
Supply V	+6V max.

Permanent damage may occur if any of these limits are exceeded.

Pin Connections

RF IN (COM)	8
RF OUT 1	5
RF OUT 2	11
TTL IN	3
+5V	1
GROUND	2,4,6,7,9,10,12
CASE GROUND	2,4,6,7,9,10,12

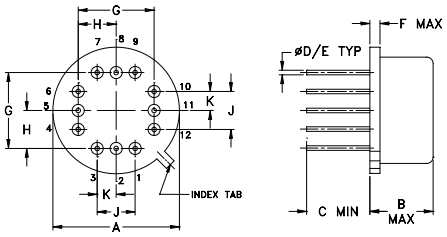
Features

- wideband, 10 to 3000 MHz
- hermetic, compact TO-8 can
- high isolation, 40 dB typ.

Applications

- military, hi-rel applications
- antenna switching
- satellite communication

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F
.600	.250	.25	.016	.020	.04
15.24	6.35	6.35	0.41	0.51	1.02

G	H	J	K	wt
.400	.200	.200	.100	grams
10.16	5.08	5.08	2.54	4.0

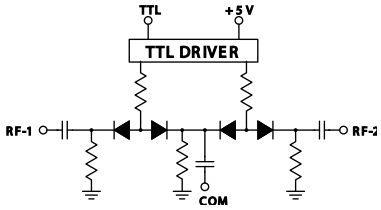
Switch Electrical Specifications

MODEL NO.	FREQ. (MHz)		INSERTION LOSS (dB)				IN-OUT ISOLATION (dB)					
			Low band lw		Upper band U		Frequency Band L		M		U	
	f_L	f_U	Typ.	Max.	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.
TOSW-230+	10	3000	1.3	1.9	1.8	2.7	60	40	40	28	35	22

L= low range(f_L to 10 f_L) M=mid range(10 f_L to f_U/2) lw=low band (f_L to f_U/2) U=upper range (f_U/2 to f_U)

Additional Specifications	
VSWR ("ON" STATE)	1.3 Typ., 1.9 Max.
SWITCHING TIME (µSEC)	2.0 Typ., 4.0 Max.
SUPPLY VOLTAGE	+5V
SUPPY CURRRENT	10 mA Max.
TTL INPUT HIGH THRESHOLD	2V Min.
TTL INPUT LOW THRESHOLD	0.8V Max.
1 dB COMPRESSION 10 to 100 MHz Above 100 MHz	 +6 increasing to +19 dBm +19 dBm min

Control Logic



TTL LOGIC		
TTL HIGH	RF-1 OFF	RF-2 ON
TTL LOW	RF-1 ON	RF-2 OFF

Notes
A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
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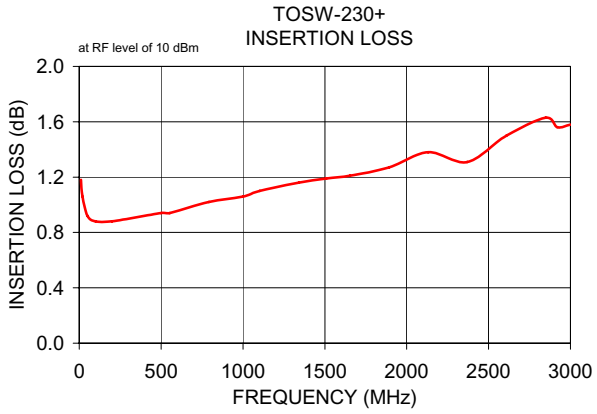
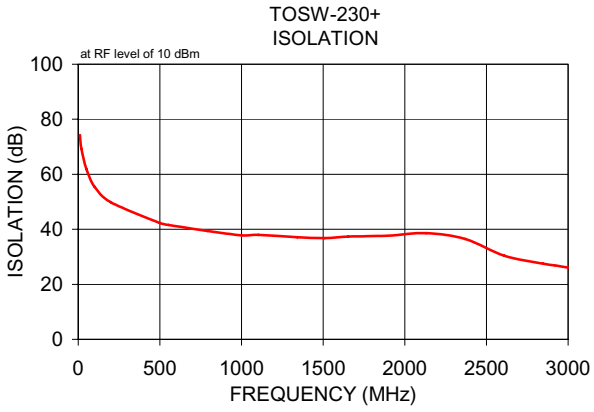
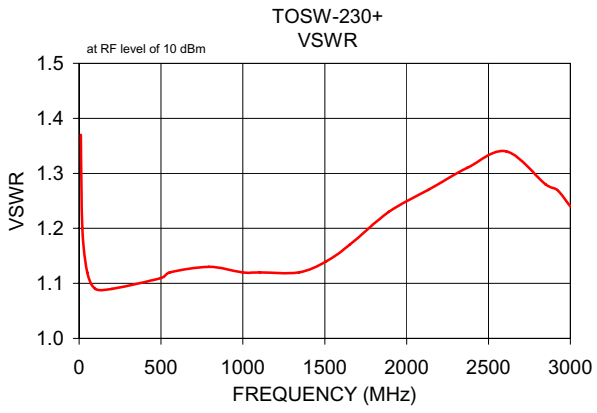
Typical Performance Data

FREQ. (MHz)	ON INSERTION LOSS (dB) IN-OUT		AMP. UNBALANCE (dB)		OFF ISOLATION (dB) IN-OUT		OFF ISOLATION DELTA (dB)		VSWR IN	VSWR OUT	VSWR OUT (RF1) OFF
	$\bar{X}$	σ	$\bar{X}$	σ	$\bar{X}$	σ	$\bar{X}$	σ	$\bar{X}$	$\bar{X}$	$\bar{X}$
10.00	1.18	0.04	0.03	0.02	74.26	1.60	1.14	0.39	1.37	1.41	31.26
20.00	1.06	0.05	0.05	0.05	69.20	1.46	1.45	1.51	1.20	1.22	30.31
50.00	0.92	0.03	0.02	0.01	61.84	1.14	1.60	1.01	1.12	1.12	30.07
100.00	0.88	0.03	0.02	0.01	55.48	0.61	0.75	0.63	1.09	1.10	30.07
200.00	0.88	0.02	0.02	0.01	49.81	0.72	0.64	0.70	1.09	1.09	30.49
500.00	0.94	0.02	0.02	0.01	42.32	0.56	0.53	0.77	1.11	1.11	29.97
552.91	0.94	0.02	0.01	0.01	41.56	0.50	0.61	0.74	1.12	1.10	28.88
792.00	1.02	0.01	0.01	0.01	39.41	0.46	0.68	0.76	1.13	1.12	26.27
1000.00	1.06	0.01	0.01	0.01	37.86	0.40	0.67	0.71	1.12	1.10	24.84
1102.82	1.10	0.01	0.01	0.01	37.96	0.40	0.70	0.73	1.12	1.08	22.83
1341.91	1.16	0.01	0.02	0.01	37.13	0.42	0.94	0.69	1.12	1.06	21.66
1509.27	1.19	0.02	0.02	0.01	36.81	0.45	0.96	0.75	1.14	1.07	20.69
1652.73	1.21	0.01	0.02	0.01	37.32	0.53	0.89	0.79	1.17	1.09	19.92
1891.82	1.27	0.02	0.02	0.02	37.64	0.67	1.82	0.71	1.23	1.14	19.28
2130.91	1.38	0.02	0.02	0.03	38.60	1.13	0.82	0.94	1.27	1.20	24.87
2370.00	1.31	0.02	0.03	0.03	36.48	3.02	2.00	1.04	1.31	1.31	19.46
2609.09	1.50	0.04	0.06	0.03	30.37	2.46	0.49	0.56	1.34	1.37	11.80
2848.18	1.63	0.06	0.04	0.02	27.51	2.19	0.30	0.21	1.28	1.41	10.49
2919.91	1.56	0.04	0.03	0.02	26.87	2.12	0.56	0.28	1.27	1.41	9.46
3000.00	1.58	0.04	0.05	0.03	26.08	2.02	0.86	0.48	1.24	1.35	11.35







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